

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently amended) An isolated transgenic somatic or embryonic stem cell having a mutant ~~endogenous~~ p27<sup>Kip1</sup> gene lacking a Cdk2 phosphorylation site replacing the endogenous Kip1 locus such that there is a loss of endogenous wildtype p27<sup>Kip1</sup> activity, wherein the mutant p27<sup>Kip1</sup> gene encodes a mutant p27<sup>Kip1</sup> polypeptide having a longer half-life in S phase than wildtype p27<sup>Kip1</sup> polypeptide, ~~and wherein the mutation results in a loss of endogenous wild-type p27<sup>Kip1</sup>.~~
2. (Original) The transgenic cell of claim 1, wherein the mutant p27<sup>Kip1</sup> polypeptide inhibits Cdk2 *in vitro* kinase activity.
3. (Original) The transgenic cell of claim 1, wherein the mutant p27<sup>Kip1</sup> polypeptide is p27<sup>T187A</sup>.
4. - 5. (Canceled).
6. (Currently amended) The isolated transgenic ~~murine mouse~~ cell of claim [[39]] 38, wherein the cell is a somatic cell, a primordial germ cell, ~~an oocyte, egg, spermatocyte, sperm cell, fertilized egg, zygote,~~ or embryonic stem cell.
7. (Currently amended) The isolated transgenic ~~murine mouse~~ cell of claim 6, wherein the ~~murine germ~~ cell is an oocyte, primordial germ cell, fertilized egg, sperm cell or spermatocyte.
8. - 37. (Canceled).
38. (Currently amended) An isolated [[A]] transgenic ~~murine mouse~~ cell having a mutant ~~endogenous~~ p27<sup>Kip1</sup> gene lacking a Cdk2 phosphorylation site replacing the

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PATENT

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endogenous Kip1 locus such that there is a loss of endogenous wildtype p27<sup>Kip1</sup> activity, wherein  
the mutant p27<sup>Kip1</sup> gene encodes a mutant p27<sup>Kip1</sup> polypeptide having a longer half-life in S  
phase than wild-type p27<sup>Kip1</sup> polypeptide.